

### ABSTRACT OF THE DISCLOSURE

A connection integrity monitor is provided wherein, for large switch fabrics (connection circuits), gate usage and power requirements are reduced by a value approaching 50% when compared to a previously disclosed connection integrity monitor.

- 5 Rather than simultaneously monitoring the connectivity of all outputs of the switch fabric, thus completely duplicating the switch fabric, the connection integrity monitor monitors only one connection at a time. Therefore, redundancy is reduced from  $M$  to 1. The connection integrity monitor can be provisioned statically to monitor any one of the output connections or arranged so that all connections can be monitored, although not
- 10 simultaneously.